

Certificate of Analysis

Final Product: Cannabidiol Isolate
 Date of Manufacture: November 2020

Lot Number: IL20111-034



Test	Methodology	Specification	Test Results (Average)*	Pass/Fail	
Color and Appearance	TM-004 (Visual)	White, crystalline powder free of particulates	Conforms	Pass	
Cannabidiol Identification	TM-001 (DAD Retention Time)	Retention time of the primary peak in sample chromatogram matches that in the analytical reference standard.	Conforms	Pass	
	TM-001 (DAD UV Spectrum)	UV Spectrum of the primary peak in sample chromatogram matches that in the analytical reference standard.	Conforms	Pass	
CBD Potency	CBD1(%w/w) TM-001 (HPLC - DAD)	>=98 %w/w	98.4	Pass	
THC Content	THC(%w/w) TM-001 (HPLC - DAD)	≤0.05 %w/w ¹	<LOQ	Pass	
	THCA(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass	
	Total THC(%w/w) TM-001 (HPLC - DAD)	≤0.05 %w/w ¹	ND	Pass	
Cannabinoid Content	CBN(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass	
	cis-THC(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	<LOQ	Pass	
	delta 8-THC(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass	
	THCV(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass	
	THCVA(%w/w) TM-001 (HPLC - DAD)	≤ Limit of Quantification ¹	ND	Pass	
	CBC(%w/w) TM-001 (HPLC - DAD)	Report	<LOQ	NA	
	CBCA(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA	
	CBDA(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA	
	Related Cannabinoid Content	CBDAVA(%w/w) TM-001 (HPLC - DAD)	Report	ND	NA
		CBDAV(%w/w) TM-001 (HPLC - DAD)	Report	0.254	NA
CBE(%w/w) TM-001 (HPLC - DAD)		Report	ND	NA	
CBGA(%w/w) TM-001 (HPLC - DAD)		Report	ND	NA	
CBG(%w/w) TM-001 (HPLC - DAD)		Report	ND	NA	
CBL(%w/w) TM-001 (HPLC - DAD)		Report	ND	NA	
CBLA(%w/w) TM-001 (HPLC - DAD)		Report	ND	NA	
CBT(%w/w) TM-001 (HPLC - DAD)		Report	ND	NA	
Total Unknowns(%w/w) TM-001 (HPLC - DAD)		Report	0.182	NA	
Total (Sum of all observed RCs known and unknown) (%w/w) TM-001 (HPLC - DAD)		Report	0.436	NA	
Total Cannabinoids (CBD plus total RCs)(%w/w) TM-001 (HPLC - DAD)	Report	98.841	NA		
Residual Solvents	Pentane(ppm) TM-005 (HS-GC - FID)	≤500 ppm	180	Pass	
	Acetone(ppm) TM-005 (HS-GC - FID)	≤500 ppm	<LOQ	Pass	
	Isopropyl Alcohol(ppm) TM-005 (HS-GC - FID)	≤500 ppm	<LOQ	Pass	
	Ethanol(ppm) TM-005 (HS-GC - FID)	≤500 ppm	<LOQ	Pass	
	Methanol(ppm) TM-005 (HS-GC - FID)	≤300 ppm	<LOQ	Pass	
	Hexane(ppm) TM-005 (HS-GC - FID)	≤25 ppm	<LOQ	Pass	
Pesticides	Individual Pesticide Content (ppm) ² TM-011 (LC-MS)	Individual Pesticide Limit ²	CONFORMS	Pass	

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Elemental Impurities	Arsenic(ppm)	ICP-MS ³	<1.0 ppm	<LOQ	Pass
	Cadmium(ppm)	ICP-MS ³	<0.4 ppm	<LOQ	Pass
	Lead(ppm)	ICP-MS ³	<0.5 ppm	<LOQ	Pass
	Mercury (Total)(ppm)	ICP-MS ³	<0.2 ppm	<LOQ	Pass
Mycotoxins	B1 (AFB1)(ppb)	USP<561> ³	≤2 ppb	<LOQ	Pass
	B2 (AFB2)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	G1 (AFG1)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	G2 (AFG2)(ppb)	USP<561> ³	≤0.5 ppb	<LOQ	Pass
	Total(ppb)	USP<561> ³	≤4 ppb	<LOQ	Pass

*Number of replicates: 21

¹TM-001 LOQ of 0.05% w/w for related cannabinoids.

²Full table of individual pesticides and associated limits on file.

³Contract Testing performed by Eurofins BioDiagnostics.

Data Reviewed and Approved by: **Tim Ghelli**
12/3/2020 9:43:46 AM